



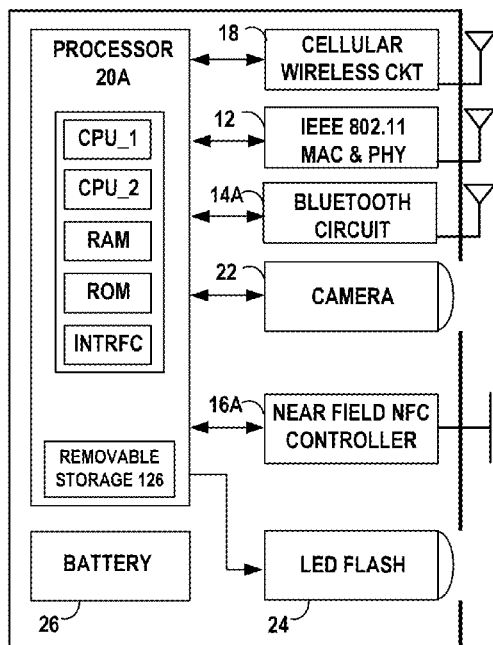
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(19) **United States**(12) **Patent Application Publication**
OLLIKAINEN et al.(10) **Pub. No.: US 2016/0233727 A1**(43) **Pub. Date: Aug. 11, 2016**(54) **METHOD, APPARATUS, AND COMPUTER
PROGRAM PRODUCT FOR POWERING
ELECTRONIC DEVICES***H04M 1/02* (2006.01)*H04W 4/00* (2006.01)*H04B 5/00* (2006.01)(71) Applicant: **Nokia Technologies Oy**, Espoo (FI)(72) Inventors: **Jani OLLIKAINEN**, Helsinki (FI); **Joni
JANTUNEN**, Helsinki (FI)(73) Assignee: **Nokia Technologies Oy**, Espoo (FI)(21) Appl. No.: **15/130,136**(22) Filed: **Apr. 15, 2016****Related U.S. Application Data**(63) Continuation of application No. 13/847,627, filed on
Mar. 20, 2013, now Pat. No. 9,369,008.**Publication Classification**(51) **Int. Cl.***H02J 50/30* (2006.01)*H04B 10/80* (2006.01)(52) **U.S. Cl.**CPC *H02J 50/30* (2016.02); *H04W 4/008*
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(57)

ABSTRACT

Example method, apparatus, and computer program product embodiments are disclosed for negotiation of wireless powering of passive objects. Example embodiments of the invention include a method comprising: receiving, via a radio frequency wireless interface of an apparatus, a radio frequency signal from a wireless device, indicating that the wireless device is capable of receiving optical powering; switching on, by the apparatus, an optical energy source in the apparatus; and transmitting, by the apparatus, from the optical energy source, optical power to the wireless device in response to the radio frequency signal.

**MOBILE WIRELESS
DEVICE A****WIRELESS MEMORY
TAG B**INITIAL SET-UP
NEGOTIATION
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